
CM3 User Manual

For ROCK3

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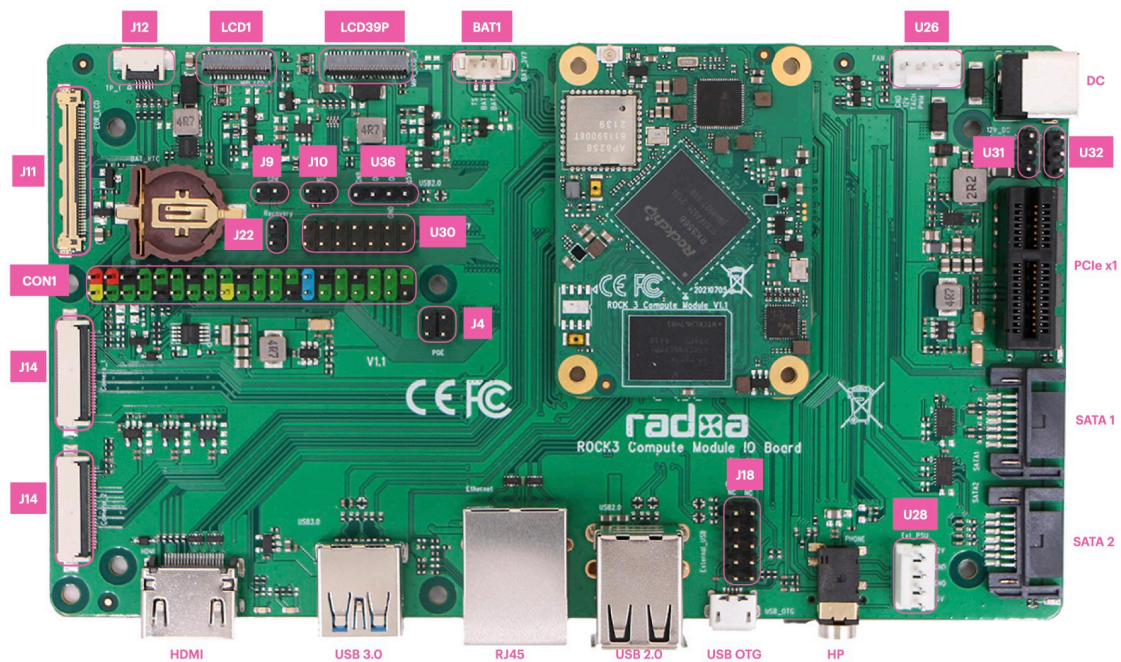
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1 Introduction

Radxa ROCK3 Compute Module(Radxa CM3) is an SoM(System on Module) by Radxa based on Rockchip RK3566 SoC in a small form factor at 55mm x 40mm size, integrating CPU/PMU/-DRAM/STORAGE/Wireless. Radxa CM3 offers out of box cost-effective solution for multiple purpose applications, accelerates customer’ s product development.

ROCK3 Compute Module IO Board is a cost-effective, high-performance, interface-rich compatible carrier board, providing SD card slot, SATA interface, PCIe, HDMI, MIPI, Ethernet, TP interface, eDP screen, USB3.0, USB2.0, RTC, SCI, GPIO, headphone jack, fan and other rich peripheral interfaces. Dimensions: 160mm × 90mm This guide is written for using Radxa CM3 SoM with the CM3 IO board. The purpose is to learn the details of the boards as well as how to prepare and set up for basic use.



2 What you need

2.1 Necessary

- CM3(any variant) + CM3 IO board
- If the CM3 doesn't have eMMC, a micro SD card larger than 8GB is required for OS
- Power supply: The main PSU input (DC) is a 2.1mm DC tip positive +12V(only) input.
- Monitor and HDMI Cable
 - CM3 IO board is equipped with a full sized HDMI connector. HDMI capable monitor is recommended.
 - HDMI EDID display data is used to determine the best display resolution. On monitors and TVs that support 1080p (or 4K) this resolution will be selected. If 1080p is not supported the next available resolution reported by EDID will be used. This selected mode will work with MOST but not all monitors/TVs.
- USB to TTL serial cable
 - CM3 IO board exports a dedicated serial console for CPU, which can access the low level debug message.
- Micro USB cable
 - If you want write image to CM3 eMMC from USB OTG port or use fastboot/adb commands you need a micro USB cable to connect CM3 IO board and PC.

3 Power on

- Plug in the 12V DC, the CM3 should automatically boot. If the CM3 doesn't have eMMC or the eMMC is empty, plug in the micro USB to host PC, host PC should detect the CM3 in maskrom mode.

4 Install image to CM3

4.1 Install image to SD card

For support please see the hardware documentation section of the [Install the image to microSD](#) website

4.2 Install image to eMMC

For support please see the hardware documentation section of the [Install Image to eMMC from USB port \(Radxa CM3 IO\)](#) website

5 Support

For support please see the hardware documentation section of the [Radxa Wiki](#) website and post questions to the [Radxa forum](#). Email: support@radxa.com